Title (en)

A QUICK RELEASE LOCKING MECHANISM AND METHOD, ESPECIALLY FOR A HIDDEN-TYPE CONVERTIBLE SHOE

Title (de)

SCHNELLLÖSE-VERRIEGELUNGSMECHANISMUS UND -VERFAHREN, BESONDERS FÜR UMWANDELBARE SCHUHE MIT VERDECKTER VERBINDUNG

Title (fr)

MECANISME ET PROCEDE DE FIXATION A LIBERATION RAPIDE, UTILISES EN PARTICULIER DANS UNE CHAUSSURE CONVERTIBLE

Publication

EP 1806987 A4 20140226 (EN)

Application

EP 05808897 A 20051018

Priority

- US 2005037454 W 20051018
- US 61965904 P 20041018
- US 21427105 A 20050829

Abstract (en)

[origin: US2006080813A1] A novel quick release locking mechanism is disclosed. The locking mechanism is comprised of a male latch member and a female receptacle. The male latch member is comprised of an arbor with a planar handle at its proximal end and a catch apparatus at its distal end. The arbor is further equipped with a slidable annulus that moves between the lower margin of the planar handle and the catch apparatus. The female receptacle is comprised of a housing and a duality of notched resilient arms. Operation of the locking mechanism is achieved by introduction of the male latch member into the female receptacle with sufficient force to urge open the resilient arms which then springably close around the catch means, thus locking the mechanism. The female receptacle is further supplied with appropriate stops to prevent separation forces from inducing upward travel of the resilient arms during use, thus increasing lock strength and durability. Unlocking is achieved by pressing the male latch member further into the female receptacle such that the resilient arms are urged open by the slidable annulus which is then pressure captured in the resilient arm notches. The male latch member is then retracted. During retraction, the catch means dislodge the slidable annulus thus allowing full separation of the male latch member from the female receptacle.

IPC 8 full level

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Citation (search report)

- [A] US 1563350 A 19251201 - FIELD WALTER E, et al
- See references of WO 2006044897A2

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US 2006080813 A1 20060420; **US 7318260 B2 20080115**; EP 1806987 A2 20070718; EP 1806987 A4 20140226; US 2008072456 A1 20080327; US 2010000128 A1 20100107; US 2011283494 A1 20111124; US 7584555 B2 20090908; US 8001664 B2 20110823; US 8789249 B2 20140729; WO 2006044897 A2 20060427; WO 2006044897 A3 20070315

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